



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/511,712

04/18/2005

Philippe Gendrier

03GR029(54517)

6747

27975

7590

05/30/2007

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A.

1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE

P.O. BOX 3791

ORLANDO, FL 32802-3791

EXAMINER

LE, THONG QUOC

ART UNIT

PAPER NUMBER

2827

MAIL DATE

DELIVERY MODE

05/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

28

Office Action Summary

Application No.

10/511,712

Applicant(s)

GENDRIER ET AL.

Examiner

Thong Q. Le

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34 and 68 is/are rejected.
- 7) ☒ Claim(s) 35-100 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amendment filed on 04/03/2007 has been entered.
2. Claims 34-100 are presented for examination.

Response to Arguments

3. Applicant's arguments with respect to claims 34-100 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 34, 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Guterman et al. (U.S. Patent No. 6,002,152).

Regarding claims 34, 68, Guterman et al. disclose a semiconductor memory device (Figure 9B) comprising:

at least one electrically erasable and programmable non-volatile memory cell(Figure 9B) including

a layer of gate material (,

a floating-gate transistor including a floating gate, and further including source drain (Figure 1B, 102, 103), and channel regions (Figure 1B, 106, Column 5, lines 55-65, channel region) defining a control gate (Column 28, lines 48-50),

a first active zone Figure 9B, SG1) , and
a second active zone incorporating the control gate and electrically isolated from the first active zone,
a dielectric zone (Column 28, lines 58-65) between a first part of the layer of gate material and the first active zone; the dielectric zone defining a transfer zone for transferring (Column 18, lines 15-16, transfer portion, Column 29, lines 2-3), during erasure of the memory cell, charges stored in the floating gate to the first active zone.

Allowable Subject Matter

6. Claims 35-67, 69-100 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 35-67, 69-100 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Guterman et al. (U.S. Patent No. 6,002,151), and others, does not teach the claimed invention having wherein the capacitance of the transfer zone is less than or equal to 30% of a total capacitance between the layer of gate material and the active zones of the memory cell, and wherein the floating-gate comprises an annular gate defined in the layer of gate material, and wherein the layer of gate material includes a linking part between the first part and the annular gate, and wherein the first active zone and the second active zone are electrically isolated from each other by reverse-biased PN junctions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarabian Amir can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thong Q. Le
Primary Examiner
Art Unit 2827

A handwritten signature in black ink, appearing to read 'Thong Q. Le', is written over the printed name and title.